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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,326	10/22/2003	Dean Foote	LAMA121883	8551

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EXAMINER	
PATEL, VISHAL A	

ART UNIT	PAPER NUMBER
3673	

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/692,326	FOOTE ET AL.	
	Examiner	Art Unit	
	Vishal Patel	3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation "the configuration of the second circumferential seal relative to the first circumferential seal prevents a total seal loss of the first circumferential seal and prevents well fluids from flowing past the first circumferential seal in the event of a blow out of the first circumferential seal" is not described in the specification. Furthermore as stated in the specification the second seal is a redundant seal and the first seal experiences a seal loss for the second seal to provide a seal function to a second seal side.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear how a seal assembly has a well, well fluids and a blow preventer. Furthermore as stated in the advisory office action the claims is only directed to a seal assembly having plurality of seal that are capable of contacting a shaft having two distinct travel area. The well fluids, well and the blow preventer are considered to be intended use limitations and are given little patentable weight in an apparatus claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Peil et al (US. 4,877,217).

Peil discloses a seal assembly for a reciprocating shaft comprising a body having a bore (bore 22), a shaft (shaft 26) that moves reciprocally within the body between an extended position from the body and a retracted position within the body (shaft 26 reciprocates), at least one first circumferential seal (seal 30 seals the shaft) positioned in the body and circumscribing the shaft, the first circumferential seal performing a seal function of preventing fluids from migrating along the shaft from a first region of the body to a second region of the body positioned immediately adjacent to the first region, the shaft having a first seal travel area (seal area that is contacted by first seal 30) which is in contact with the first seal during axial reciprocating movement of the shaft (portion that contacts as seen in figure 3), *at least a portion of the first seal travel area extending from the body where it is exposed to contaminants when the*

shaft is in the extended position (intended use), at least one second circumferential seal (seal 32) positioned in the body and circumscribing the shaft in axially spaced relation to the first circumferential seal (seal 30), the second circumferential seal performing the same sealing function as the first circumferential seal (the seal 32 seals the shaft), and serving as a redundant back up seal until the first circumferential seal experiences seal failure (intended use when the first seal fails, but the seal 32 is a redundant seal for preventing fluid from entering the second region), the shaft having a second seal travel area (area of the shaft 26 that only contacts seal 32) which is in contact with the second seal during axial reciprocating movement of the shaft the second seal area remaining sheltered within the body even when the shaft is in the extended position (the second seal area is sheltered in the body, see figures 1-3), the first seal travel area and the second seal travel area being axially spaced separate and distinct areas on the shaft (the first seal travel area is distinct from the second seal travel area), such that damage to the exposed portion of the first seal travel area leading to a failure of the at least one first circumferential seal does not lead to failure of the at least one second circumferential seal, as the second circumferential seal engages the second seal travel area which is separate and distinct from the first seal travel area (as seen in figure 2, an outer surface of the shaft 26 between seals 30 and 32 is smaller than the outer surface of the shaft 26 between the second seal 32 and end of 36, see attached figure).

The shaft is ram shaft of a blow out preventer.

Regarding the limitations that the second seal provides a redundant backup seal "which serves no active sealing function" (this is the case since as stated in the reference of Peil that if

the seal 30 fails leakage is indicated in the port 34 and this teaches that the second seal 32 provides a seal to prevent fluid from going to space 89, column 2, lines 35-42).

The configuration of the second circumferential seal relative to the first circumferential seal prevents a total seal loss of the first circumferential seal and prevents well fluids from flowing past the first circumferential seal in the event of a blow out of the first circumferential seal (this is the case since all the structural limitations are as claimed by the applicant, furthermore a total seal loss of the first circumferential seal is prevented because the second seal is placed in a relative position to the first seal as claimed by the applicant).

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Rasmussen (US. 1,709,949).

Rasmussen teaches a seal assembly having a body having a bore (body having shaft 260), a shaft (260) that is a ram shaft of a blow out preventer, a first circumferential seal (seal 85) positioned in the body that contacts a first seal area of the shaft (where the first circumferential seal contacts the shaft 260), a second circumferential seal (either 118 or 55) positioned in the body that contacts a second seal area (where the second circumferential seal contacts the shaft 260) of the shaft that is sheltered in the body and distinct from the first seal area and the second circumferential seal is a redundant seal. The configuration of the second circumferential seal relative to the first circumferential seal prevents a total seal loss of the first circumferential seal and prevents well fluids from flowing past the first circumferential seal in the event of a blow out of the first circumferential seal (this is the case since if the seal 85 fails the seal 55 prevents any fluid from the bottom to flow past the first circumferential seal and the seal 118 prevents any fluid from the top to flow past the first circumferential seal).

Response to Arguments

8. Applicant's arguments with respect to claims 1-2 have been considered but are not persuasive.

Applicant argument that the limitations that the second seal provides a redundant backup seal is not taught by Peil is not persuasive because Peil teaches this as noted in column 2, lines 35-42. Furthermore as also showed in the reference of Peil that the primary seal is 30 and the secondary seal is 32, in the event the seal 30 is damaged a fluid port for detecting leakage is present, hence the second seal would provide a seal function that is of the primary seal). Applicants' argument that both seals provide active function is not persuasive because only one seal actively seals one fluid and both seals would perform a redundant seal for each of the fluid. The seal 32 act as a primary seal for fluid 89 and 30 as a backup seal for fluid 89. The seal 30 acts as a primary seal for fluid from well and seal 32 acts as a backup seal for fluid from the well.

Furthermore the added limitation ("the...seal") are considered to be intended use limitations and the relative position of the first circumferential seal and the second circumferential seal is taught by the reference of Peil.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is 571-272-7060. The examiner can normally be reached on 6:30am to 8:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on 571-272-6660. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP
July 11, 2006

Vishal Patel
Primary Examiner
Tech. Center 3600